

ABSTRACT

[051] The present invention relates to methods of determining the source of a particular fluid or particulate, and to novel tracer matrixes that may be used in such methods. In one embodiment, the present invention provides a method of detecting particulate or fluid flow from a first location to a second location comprising the steps of: introducing a tracer matrix comprising a polymeric material and a photoactive material to the first location; and detecting the photoactive material at the second location. In another embodiment, the present invention provides a method of detecting flow from a first zone and a second zone in a multizonal well in a subterranean formation comprising the steps of: introducing a first photoactive tracer into the first zone; introducing a second photoactive tracer into the second zone; and detecting the first and the second photoactive tracers in the return flow from the first and second zones.